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ABSTRACT

There has been a considerable expansion in the uses and definitions of giftedness constructs since 1958, when constructs were typically defined in very narrow cognitive terms (such as intelligence test scores). Currently, gifted constructs have a wide variety of definitions which reflect closely-linked processes used for identifying and selecting (and subsequently labelling) gifted pupils and for making decisions about program goals and procedures. The breadth of such constructs range from definitions involving a single characteristic (such as creativity or mathematical aptitude) to those which include a broad range of cognitive and noncognitive characteristics. Other dimensions in the variability of gifted constructs include content, level of exceptionality, a static or dynamic focus, and precision of the construct's definition. Another issue of importance concerns the sources of definitions for constructs; these include derivations from theory, derivations from selection instruments, and empirical derivations. To be accurate and meaningful, each gifted construct should have four conditions: explicit definition; a theory-value base; derivation of the selection model from the construct; and empirical validation. (CB)

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An Examination of the Giftedness Construct

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Abstract

Some issues relevant to the giftedness construct are examined. The paper begins with some statements regarding the importance of that construct for (a) decisions about selection procedures, (b) decisions about program goals and curricula and (c) the labelling process implicit in the use of such a construct. Second, there is a discussion of the ways in which definitions of the giftedness construct vary across applied and research settings. The third section of the paper contains a discussion of alternative sources of definitions of the giftedness construct. Three sources are identified: (a) derivations from theory; (b) derivations from selection instruments; and (c) empirical derivations. The paper concludes with a set of conditions which should be observed in situations in which the giftedness construct is employed.

An Examination of the Giftedness Construct

Twenty-eight years ago, Getzels and Jackson (1958) raised some questions about the definition of the giftedness construct. They began by showing that the construct was usually defined in terms of scores on an intelligence test: "'Giftedness' as related to children has most frequently been defined as a score on an intelligence test, and typically the study of the so-called gifted child has been equated with the study of the single IQ variable" (Getzels & Jackson, 1958, p. 75). They then argued that this practice had some undesirable consequences for the giftedness construct. First, it meant that the construct was defined in very narrow cognitive terms. Second, it meant that the construct was based on the particular definition of intellectual functions represented in the IQ test employed. This further narrowed the scope of the construct. Third, over time, surplus meanings had come to be associated with the giftedness construct which had very little to do with the narrow assessment of cognitive functioning on which the construct was based. In other words, values and expectations were associated with the gifted label which went far beyond what was actually being designated by the IQ test score.

Getzels and Jackson (1958) then showed that alternative constructs of giftedness could be derived by using different starting points. They also showed that the different constructs had very different implications for the kinds of performance to be expected of the child

and, hence, for the kinds of programming that would be appropriate. Their paper represented primarily a call for an expanded definition of the giftedness construct. It could also have been interpreted, however, as a plea for more attention to the construct and for more precision in its definition.

There has been a considerable expansion in the use of the giftedness construct since 1958. This is reflected in expanded efforts to identify gifted children, in increased numbers of special educational programs for gifted pupils and in a great proliferation of research studies focusing on the gifted child. Given these efforts, it seems important to ask whether or not we have made much progress over the past 28 years in the definition of the gifted construct.

There are several senses in which this issue of definition is important. First, there is a close link between the definition of the giftedness construct and the processes of identifying and selecting gifted pupils (Birch, 1984; Feldhusen, Asher & Hoover, 1984; Rosenfield, 1983; Treffinger, 1984). For example, very different kinds of selection procedures are involved where giftedness is defined solely in terms of cognitive competencies than where a broad conceptualization including cognitive and noncognitive competencies is involved.

Second, there is a close link between definitions of the gifted construct and decisions about program goals and procedures (Birch, 1984; Feldhusen, 1982; Fox, 1981; Kirschenbaum, 1983; Treffinger, 1984). For example, the use of a definition of giftedness based on a conception of more-or-less stable cognitive skills implies a very different kind of

educational program than does a conception based on some notion of dynamic creative potentialities (Feldman & Benjamin, 1986; Renzulli, 1984, 1986).

There is also a third sense in which the nature of the gifted construct is important. Most applications of the construct entail an explict labelling process. Thus, some children are labelled 'gifted' or 'talented' or 'exceptional' - and other children are, in effect, labelled 'not gifted', 'not talented', etc. Typically, the designated children are then placed in a special program. Even more important, though, is the fact that a whole set of expectations are thereby induced in teachers, parents and the child (Cornell, 1983; Ford, 1978; Sapon-Shevin, 1984, 1986). These expectations may have a great impact on the child, and it becomes, therefore, very important to understand the nature of the construct from which the label and the expectations derive. As Messick (1980) has argued, "In choosing a construct label, we should strive for consistency between the trait and evaluative implications of the name, attempting to capture as closely as possible the essence of the construct's theoretical import...in terms reflective of its salient value connotations" (p. 1022). We have a good idea of the decisions and expectations which follow from the gifted label. What is not always clear, as we will see, is the nature of the construct on which that label is based.

This paper presents a discussion of the giftedness construct in the light of current educational practice and of the current theoretical and empirical literature. It begins with an outline of some ways in which

current definitions of the construct differ. This is followed by a discussion of alternative sources of the giftedness construct. Finally, a set of recommendations regarding the treatment of the giftedness construct in applied settings is presented.

Variability in Definitions

We often act as though we are dealing in the case of giftedness with a unitary and universally accepted construct. Thus, we have a tendency to talk of the gifted child in the gifted program. This view is very much in error. There are many gifted constructs, and there are several dimensions on which the constructs differ (Fox, 1981; Gallagher & Courtright, 1986; Jackson & Butterfield, 1986; Treffinger, Pyrty, Hawk & Houseman, 1979). I won't attempt to survey all of the definitions encountered in this literature, but I will review the major dimensions on which they differ, and in so doing will illustrate some of the variety which exists.

Breadth of the Construct

The first dimension of variability concerns the breadth of qualities or traits represented in the construct definition. At one extreme are those definitions which deal with the construct in terms of a single characteristic such as mathematical aptitude (e.g., George, 1974) or creativity (e.g., Torrance, 1965). At the other extreme are complex, multivariate definitions which include a broad range of traits or qualities. An example of the latter is the definition proposed by Hagen (1980) which includes 15 dimensions relating to cognitive characteristics (e.g., use of quantitative

expressions and quantitative reasoning), academic skills (e.g., absorption in intellectual tasks), and personality characteristics (e.g., persistence on uncompleted tasks). There is evidence that the recent trend is toward multivariate rather than univariate definitions (Feldhusen, 1986; Renzulli, 1978, 1984, 1986; Rosenfield, 1983; Tannenbaum,1983), but there is, in fact, little consistency on the issue in educational practice or in the research literature.

Content of the Definition

A second dimension of variability relates to the nature of the qualities represented in the definitions. The focus has traditionally been on cognitive capacities. Further, because of the wide dependence on IQ tests as selection instruments, these constructs have generally been defined in terms of specific IQ tests. In contrast, there are those definitions of the construct which incorporate motivational, personality or attitudinal variables instead of/or in addition to the cognitive variables. An example is Renzulli's (1978, 1984, 1986) definition of gifted potential which is based on the three dimensions of (a) academic abilities, (b) task commitment and (c) creativity. An even broader range of variables is represented in the Hagen (1980) definition which was discussed above. Surveys conducted in Canada (Borthwick, Dow, Levesque & Banks, 1980), the United States (Alvino, McDonnel & Richert, 1981; Karnes & Collins, 1981) and the United Kingdom (Freeman, 1979) document the great variability that exists in the content of gifted constructs across various assessment settings.

Level of Exceptionality

A third dimension of variability concerns the level of exceptionality or excellence represented in the construct. This is a dimension which is largely defined by the nature of the selection model employed. Thus, there are selection situations where giftedness is defined in terms of scores above 130 on the WISC-R or in terms of a particular position in a teacher ranking on creativity. The point is that these rules have implications for the underlying construct and for programming (Rosenfield, 1983; Sapon-Shevin, 1986). A very different conceptualization of giftedness is implied where a 90th percentile cut-off is employed on the WISC-R than where an 80th percentile cut-off is used. Similarly, a different construct is involved where the label 'gifted' is attached to all children denoted as above average in gifted potential by teachers than the case where the label is reserved for the two pupils in the class designated as having the highest levels of potential.

Static vs Dynamic Focus

A fourth dimension of variability concerns the extent to which the conceptualization incorporates a static vs a dynamic view of the characteristics represented therein. On the one hand, we have those narrowly cognitive definitions, generally deriving from IQ test performance, that conceptualize giftedness in terms of a relatively static set of cognitive-academic skills. The assumption in this case is that we are dealing with a 'bright child' who will be bright for all time and under all circumstances. At the other extreme are those

conceptualizations of giftedness which entail a set of potentialities which may or may not be developed, depending on the circumstances. While the former, static, view is the traditional one, there is strong evidence for a shift away from that type of position: "It would also be desirable to reconceptualize the identification process and move away from the hereditary based concept of a general, fixed, stable, permanent giftedness...and attend to the identification of those youth who are not using or developing the full potential of their superior talent or ability" (Feldhusen et al., 1984, p. 150).

Precision of the Definition

A fifth dimension of variability concerns the precision with which the giftedness construct is defined. The ideal situation is one in which the elements of the construct are explicitly stated; those elements are linked to specific measuring operations; and data are presented on the validity of the construct (Messick, 1980, 1981; Shavelson, Hubner & Stanton, 1976). Many efforts fall short of this ideal.

What we encounter in many cases are global, vaguely defined constructs. One example is represented in the familiar definition presented by the United States Department of Education (Marland, 1972). A similiar example is encountered in the definitions of exceptionality and giftedness formulated by the Ontario Legislature and the Ontario Ministry of Education (Ontario Ministry of Education, 1984a, 1984b). The Ontario Education Act defines an exceptional pupil as "a pupil whose behavioural, communicational, intellectual, physical, or multiple

exceptionalities are such that he is considered to need placement in a special education program." The Ministry of Education then goes on to define giftedness as "an unusually advanced degree of general intellectual ability that requires differentiated learning experiences of a depth and breadth beyond those normally provided in the regular school program to satisfy the level of educational potential indicated" (Ontario Ministry of Education, 1984a, p. 17). The problem is that many of the concepts represented in the definitions - communicational exceptionalities, multiple exceptionalities, advanced general intellectual ability - remain largely undefined. Unfortunately, this is a problem often encountered in applied settings.

At the other extreme of this precision continuum are those cases where the construct is defined in purely operational terms. An example would be the case where gifted potential is treated as an exceptionally high level of aptitude in a particular academic area and is operationally defined in terms of performance on, say, a test of mathematics achievement. The construct may be said to be explicitly defined in these cases, but there are two cautions to be noted. First, the linking of the construct definition to specific measuring instruments usually means that we are confined to a restrictive rather than a broad definition of giftedness (Renzulli, 1978; Rosenfield, 1983). Second, there seems to be a very strong tendency to 'go beyond' the terms provided by the operational definitions and to associate surplus meanings with the underlying constructs (Messick, 1980, 1981). This means in the present case that the gifted construct or label comes

to acquire meanings far beyond the measuring instruments from which they originally derived.

Summary

There is considerable variability in the way in which the gifted construct is defined in practical and research settings, and some of the dimensions of that variability have been described here. It is important to recognize, however, that variability in definition is not in itself undesirable. The argument will be advanced later in the paper that definitions of the gifted construct should flow from assumptions and values respecting the needs of children and of the most effective programming for meeting those needs. These assumptions and values are likely to vary from one setting to another, and, hence, alternative formulations of the gifted construct are inevitable. There is, however, one point on which there can be no compromise: It is essential in all cases that the terms of the construct be made as explicit as possible. If children are going to be labeled 'gifted', it is essential to understand what that label denotes.

Sources of the Giftedness Construct

Another issue of some importance in examining the giftedness construct concerns the source of the definition of the construct. Three sources are identified and discussed: derivations from theory, derivations from selection instruments and empirical derivations. It should be noted at the outset that, in any given applied situation, the construct might derive from more than one source. Still, it is of value

to consider these as mutually exclusive sources for the purpose of highlighting some of their strengths and weaknesses.

Derivations from Theory

In some cases the giftedness construct is derived from a psychologial or educational theory. One example is the definition developed from Guilford's (1967) Structure-of-Intellect Model by Meeker (1969) and others. This definition is based on 12 of the 120 factors represented in that model, and it reflects various domains of cognitive and academic skills. A second example can be found in the recent work of Sternberg (1986) in the development of a triarchic theory of giftedness. The theory incorporates a set of propositions regarding cognitive processes and patterns of utilization of those processes, and a definition of the construct is derived from those propositions.

The position to be advanced in this paper is that definitions of the giftedness construct should be derived from psychological or educational theory or, at any rate, related logically to such a theory; we should be able to justify our definitions in terms of some coherent theory of the needs of pupils and of the most effective programming to meet those needs. The problem is that in many applied settings the theory is poorly articulated and/or the definition of the construct is inadequately related to the theory (Gallagher, 1979; Hagen, 1980; Rosenfield, 1983). There is, in other words, very little effort to justify the definition on any theoretical or philosophic grounds.

Derivations From Selection Instruments

The reference is to the case where the giftedness construct is derived from the measuring instruments employed in identifying or selecting the gifted pupils. Thus, the construct is defined in terms of a score above 130 on the WISC-R or in terms of some complex selection procedure based, for example, on a group IQ test score, a teacher nomination and the judgment of a committee of experts. There is nothing inherently wrong with this practice as long as the operational definition is made explicit and is consistent with any theoretical or value criteria which may be relevant. Unfortunately these conditions are not always met, and we encounter many unsatisfactory situations in using selection instruments to define the construct. Some of the more important types of problems will be indicated here.

One common problem is that no effort is made to explicate the constructs represented in the selection procedures. Thus, children are identified as gifted on the basis of test scores or teacher nominations or expert judgment, but no effort is made to identify the traits, aptitudes or behaviours that are being identified by the instruments. This is clearly an unsatisfactory situation: intelligent decisions about programming can only be made where statements are provided about the characteristics of the children involved. Further, we are engaged in a labelling process, and we must be prepared to defend that process in concrete terms.

A second problem is that, in many cases, it is not really possible to derive an explicit construct from the measuring instrument. Consider

first the case where IQ test scores are used as the basis for identification. What constellation of traits, aptitudes and behaviours is represented by scores above 120 on the Stanford-Binet? The question is impossible to answer at the moment given the controversies which exist over the meaning of IQ scores in general (Neisser, 1979) and, in particular, in the context of identifying gifted children (Birch, 1984; Harrington, 1982; Sternberg, 1982). A similiar situation exists in the case of teacher rating and nomination procedures. Because teachers are usually given such vague instructions and criteria for making the judgments, there is great ambiguity in the meaning of the judgments (Hoge & Cudmore, in press). If there is such uncertainy associated with the meaning of scores from individual selection instruments, it is easy to imagine that even greater ambiguity is associated with the meaning of indices from the more complex selection models usually employed in actual situations.

A third type of problem arises in those situations where there is a discrepancy between the formal or official definition of the construct and the operational definition provided by the selection instruments. So, for example, we often encounter cases where a formal definition of the giftedness construct has been derived which incorporates a broad range of cognitive, motivational and personality characteristics. Yet we find that the actual identification of gifted pupils is based solely on IQ test performance. This practice reflects what Messick (1981) refers to as 'model slippage' or 'model compounding.' There is, in other words, a discrepancy between the

theoretical model assumed to be operating in the selection situation and the actual model represented by the selection instrument.

Empirical Derivations of the Giftedness Construct

A third approach to the derivation of the giftedness construct is based on empirical procedures. There are two main empirical strategies which have been used in this connection.

The first strategy entails contrasting groups of gifted and nongifted children in terms of cognitive or motivational or personality attributes. Jackson and Butterfield's (1986) recent review paper indicates that considerable research has been conducted with this strategy and that some progress has been made, particularly in the identification of cognitive processes associated with giftedness. There are, however, two problems exhibited in this research. First, there is considerable inconsistency in the definition and measurement of the child attribute variables. Second, and this the more serious problem, there are inconsistencies and inadequacies in the way in which the criterion groups, gifted and nongifted, are formed.

A second strategy entails the systematic collection and analysis of data on the attributes of gifted children from teachers and other professionals who have had experience with the education of the gifted. While this strategy has not been been extensively employed, there are several efforts which at least illustrate the value of the approach. The recent studies of Kornblau (1982) and Murphy, Jenkins-Friedman and Tollefson (1984) in which perceptual and attitudinal data were

collected from teachers on the concept of the 'ideal' pupil provide good examples of the use of the strategy.

Conclusions and Recommendations

The paper began with a review of Getzels and Jackson's (1958) criticisms of treatments of the giftedness construct, and with a discussion of the importance of that construct for decisions about selection procedures and programming, and for the labelling process. Unfortunately, we have seen in our examination of the variability and sources issues that many inadequacies remain in our treatment of the giftedness construct. The most serious of these problems have to do with (a) the failure to provide explicit definitions of the construct, (b) the lack of theoretical or philosophic justifications for the definitions and (c) a tendency to associate surplus meanings with definitions provided by selection instruments.

In an effort to provide some guidance for future treatments of the construct, a set of four conditions regarding the use of the giftedness construct will be presented.

The Need for Explicit Definitions

The first condition is that the terms of the giftedness construct must be explicitly stated in any situation in which the construct is employed. Because concrete decisions are made on the basis of the construct, and because an explicit labelling process is involved, it seems imperative that a clear statement be provided of the traits, aptitudes and/or behaviours on which the decisions and labels are based.

The Need for a Theory-Value Base

The second condition is that the construct should be derived from some coherent theory or philosophy or set of values respecting (a) the needs of the children involved and (b) the most effective programming for meeting those needs. In other words, there must be some formal justification for the giftedness construct that has been derived. This is not an easy condition to satisfy, and there are a number of complex issues which could be raised in connection with the point. I will touch on three of those issues very briefly here.

First, there is the problem that, in surveying the theoretical and empirical literatures in psychology and education, we encounter a great number of often conflicting developments. We can ask, in other words, where do we go for this theory on which we will build a giftedness construct? The only response to be made is that at least some effort must be made to employ those literatures, that any decisions about the construct should be made with some awareness of current developments in the field. It can be noted, further, that there exist some good models of efforts to derive definitions of gifted potential from the literature (Feldman & Benjamin, 1986; Hagen, 1980; Renzulli, 1984, 1986; Tuttle & Becker, 1980); practitioners should familiarize themselves with those efforts.

A second issue concerns the focus of the construct. As we have seen, definitions usually represent efforts to identify and define areas of exceptionality. An alternative approach, and a more desirable one, involves derivations of the construct from some comprehensive model of

the needs of all pupils (Birch, 1984; Renzulli, 1984, 1986; Treffinger, 1984). This type of principle permits more flexibility in programming than that seen in the more traditional type of gifted model. It also helps to respond to the charge of 'elitism' so often advanced against any efforts to provide special treatment to gifted children (Sapon-Shevin, 1986). The principle is well illustrated in the Revolving Door System of Gifted Education being developed by Renzulli (1984, 1986) where programming for exceptionality is applied to all children. It is also represented in the continuing efforts of the Ontario Ministry of Education to develop educational programming based on a comprehensive model of pupil needs (Ontario Ministry of Education, 1984a, 1984b, 1985).

A third issue which can be raised in connection with this condition has to do with links between the giftedness construct and the gifted programming. A problem often encountered in applied settings is that there is only a very weak link between these two factors (Birch, 1984; Feldhusen et al., 1984; Hagen, 1980; Tuttle & Becker, 1980). In fact, in some cases separate units of the school administration are responsible for the identification/selection process and the programming process. This is clearly an unsatisfactory situation: derivations of the giftedness construct must be made in terms of program goals and procedures.

Deriving the Selection Model from the Giftedness Construct

A third condition is that decisions about selection instruments and selection procedures should follow from the construct rather than the

converse. Thus, we should first make our decisions about the traits, aptitudes and behaviours we wish to include in the construct, and then search out the best available instruments for assessing those characteristics. This is not an easy objective to satisfy given the current fallible state of our measuring instruments; but the effort must be made, for, as we have seen, the consequences of following the reverse procedure are unacceptable.

Here too there are some useful models to follow. Thus we find very careful efforts to evolve rational selection strategies from giftedness constructs within the Triad/Revolving Door System of Renzulli (1984, 1986), the GIFT program developed by Rimm (1976, 1984) and the Talent Search Project (Fox, 1981; George, 1979; Keating, 1976).

Need for Empirical Validation

The fourth condition is that continuing efforts must be made to evaluate the validity of the giftedness construct which has been derived and the validity of the selection instruments being employed in connection with the construct. There are several strategies which can be employed, two of which will be indicated here.

First, continuing efforts should be made to assess the validity of the giftedness construct against expert opinion. This recommendation is based on the reasonable assumption that teachers and other professionals, particularly those with extensive educational experience, can provide us with valid and useful information about pupils if they

are given the proper tools for doing so (Hoge, 1983, 1984; Hoge & Butcher, 1984; Hoge & Cudmore, in press).

Second, some efforts must be made to assess the predictive validity of the giftedness construct and the associated measuring instruments against the criterion of success in the gifted programs (Hoge & Cudmore, in press; Siegler & Katovsky, 1986). There are, to be sure, problems in the conduct of such longitudinal research and in the derivation of a success criterion. Nevertheless, most uses of the giftedness construct are based on the assumption that the construct is linked in a meaningful way to success in a gifted program, and the absence of data on the assumption is a serious matter.

Summary

It can be said in closing that the consideration of these four conditions does not constitute a mere academic exercise. Some children in our schools are being labelled "gifted" and an even larger number are, in effect, being labelled "not gifted". Further, these labels have far-reaching implications for the children, both within the school setting and outside. It is imperative, therefore, that some rules be followed in arriving at the judgments.

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Footnotes

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2. Sapon-Shevin (1986) and Tannenbaum (1983) have provided full discussions of the political implications of alternative definitions of the giftedness construct.

3. A similiar kind of argument has been presented by Gallagher and Courtright (1986), Renzulli (1984, 1986) and Treffinger (1984).